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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,687	03/03/2004	Ezio Musso	108910-00123	2294
4372	7590	07/14/2008		
ARENT FOX LLP 1050 CONNECTICUT AVENUE, N.W. SUITE 400 WASHINGTON, DC 20036				
EXAMINER				
SERGENT, RADON A				
ART UNIT		PAPER NUMBER		
1796				
NOTIFICATION DATE		DELIVERY MODE		
07/14/2008		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DCIPDocket@arentfox.com  
IPMatters@arentfox.com  
Patent\_Mail@arentfox.com

### Office Action Summary

**Application No.**

10/790,687

**Applicant(s)**

MUSSO ET AL.

**Examiner**

Rabon Sergeant

**Art Unit**

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 April 2008.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-11 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☒ Certified copies of the priority documents have been received in Application No. 09/375,239.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SI/88)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

1. Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants have failed to provide support for the claimed subject matter. Applicants have failed to provide adequate support for the production of polyurethane foams having the claimed density of about 30 kg/cm<sup>3</sup> using compositions other than those set forth within Table 14 (page 33 of the specification). There is no evidence of record other than that set forth within the table that polyurethane foams having the claimed density can be produced using compositions of the full scope claimed. Applicants have failed to establish that reactants, catalyst, and blowing agents (other than HFPE1/HFC 365 mfc (60/40) and HFPE1/HFC 356 ffa (20/80)), as well as quantities of these components, other than those exemplified will yield polyurethane foams having the claimed density. The examiner has carefully considered applicants' response and declaration; however, the evidence set forth within the specification and the declaration fails to establish that support exists for the scope claimed. Applicants fail to provide any other disclosure or examples that establish that other blowing agent mixtures or reactants will yield a polyurethane foam having a density of about 30 kg/cm<sup>3</sup>.

2. Claim 11 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants have failed to provide support for the subject matter of claim 11. Claim 11 requires azeotropic compositions; however, applicants have not demonstrated that true azeotropes will form for the full scope of the mixtures claimed. In fact, applicants provide evidence that true azeotropes are not formed for the full scope of the claimed mixtures. Applicants' attention is directed to pages 6, 7, 23, and 24 of the specification.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claim 11 is rejected under 35 U.S.C. 102(b) as being anticipated by Klug et al. ('882 or '016 or '931).

Patentees disclose azeotropic compositions, useful as foaming agents, wherein compositions that correspond to applicants' compositions are disclosed. See abstracts. Since azeotropic compositions are disclosed, applicants' percent compositions are considered to be inherently met by the references. The examiner has again considered applicants' arguments; however, the position is maintained that the disclosed formulas encompass the claimed compounds and are not so extensive that one could not have envisaged the claimed combination of fluoroether and hydrofluorocarbon. The rejection is considered to be tenable in view of the guidelines set forth within MPEP 2131.02.

5. Claims 1-4 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klug et al. ('882 or '016 or '931).

Patentees disclose azeotropic compositions and their use as blowing agents for polyurethane foams, wherein applicants' claimed compounds of the claimed composition are encompassed by the disclosed formulas for the components of the disclosed azeotropic composition. See abstracts. Since azeotropic compositions are disclosed, applicants' percent compositions are considered to be met by the references. Though patentees fail to specifically exemplify applicants' claimed component species, the position is taken in view of the disclosures of the prior art that it would have been obvious to select a fluoroether and a hydrofluorocarbon that satisfy the conditions of the aforementioned formulas and to utilize the resulting azeotropic blend in its art recognized capacity as a blowing agent for the production of polyurethane foam. The position is additionally taken that controlling the density of the foam to arrive at a certain or specific density value amounts only to the control or optimization of result effective variables.

*In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

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6. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klug et al. ('882 or '016 or '931) in view of Barthelemy et al. ('320).

As aforementioned, Klug et al. are considered to disclose azeotropic compositions and their use as blowing agents for polyurethane foams that at the least render obvious applicants' azeotropic composition and their method for producing a polyurethane foam. However, while Klug et al. are silent regarding the use of additional blowing agents, such as water or carbon dioxide, within polyurethane foam formulations, the use of water in combination with fluoroether azeotropes as blowing agents for polyurethane foams was known at the time of invention. This position is supported by the teachings of Barthelemy et al. ('320). See Table III. Therefore, the position is taken that it would have been obvious to utilize water and carbon dioxide (inherently generated by the use of the water blowing agent) as additional blowing agents with the foam formulations of Klug et al. so as to arrive at the instant invention.

7. The examiner has carefully considered applicants' response and the cited declarations; however, the position is taken that applicants' response is insufficient to overcome the rejections, given the scope of the claims. It has been held that the claims must be commensurate in scope with any showing of unexpected results. *In re Greenfield*, 197 USPQ 227. It has further been held that a limited showing of criticality is insufficient to support a broadly claimed range. *In re Lemin*, 161 USPQ 288. Applicants have only provided a very limited showing in that the blowing agents are limited to two specific blends. The polyurethane forming reactants as well as the quantities of components are similarly limited. Accordingly there is insufficient evidence of record to establish unexpected results for the full scope of the claimed subject matter. Furthermore, despite applicants' remarks, the position is maintained that the formulas of the

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blowing agent compounds within the references are adequate to fairly disclose applicants' claimed species.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (571) 272-1079.

/Rabon Sergent/  
Primary Examiner, Art Unit 1796

R. Sergent  
July 7, 2008